

### **Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

### **Listing of Claims:**

Claims 1- 19 (canceled).

20. (Currently Amended) A method for ~~inducing the re-expression of a previously silenced endogenous gene encoding human sodium/iodide symporter~~ introducing iodide into a human thyroid carcinoma cell containing a silenced endogenous gene encoding human sodium/iodide symporter, comprising administering to the cell a compound selected from the group consisting of 5-azacytidine, sodium butyrate, dimethylsulfoxide, adenosyl-1,8-diamino-3-thio-octane, and phenylacetate and iodide.

21. (Previously Presented) The method of claim 20 wherein the thyroid carcinoma cell is a thyroid typical papillary carcinoma cell or a follicular carcinoma.

22. (Previously Presented) The method of claim 20 wherein re-expression is effected by demethylating the previously silenced endogenous gene or by inhibiting methylation in the cell.

23. (Previously Presented) A method for restoring iodide transport to a human thyroid carcinoma cell comprising administering 5-azacytidine to the cell in an amount effective to transcriptionally activate the expression of a gene encoding the human sodium/iodide symporter.

24. (Currently Amended) A method of restoring iodide transport to a human thyroid carcinoma cell comprising administering difluoromethylornithine or S-adenosyl-1,8-diamino-3-thio-octane to the cell in an amount effective to transcriptionally activate the expression of a gene encoding the human sodium/iodide symporter and administering iodide to the cell.

25. (New) The method of claim 19 wherein the iodide is radiolabeled iodide.
26. (New) The method of claim 24 wherein the iodide administered to the cell is radiolabeled iodide.